

Notice of Allowability

Application No.

10/611,490

Examiner

Ives Wu

Applicant(s)

MACKNIGHT, AL

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/28/07.
2. ☒ The allowed claim(s) is/are 12-17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

- (1). Applicants' Amendments and Remarks filed on 02/28/2007 have been received.
Claims 12-15 are amended. Claims 1-11 are non-elected.
The rejections for claims 12 - 17 in prior Office Action dated 12/20/07 is withdrawn in response to the Amendments of 02/28/2007.

EXAMINER'S AMENDMENT

- (2). An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with *Attorney Peter Tribulski, Tel. 310-512-4886 on April 19, 2007.*

The application has been amended as follows:

Claims 1 – 11. (Cancelled)

Allowable Subject Matter

- (2). **Claims 12 - 17** are allowed.

Reasons for Allowance

- (3). The following is an examiner's statement of reasons for allowance:

The 1st related prior art reference located by examiner is McNicholas (US004468234) – McNicholas (US004468234) discloses the centrifugal separator for the removal of carbon dioxide including the step of spraying scrubber, however, the collection of separated liquid is under the gravitational force.

The 2nd related prior art reference located by examiner is Martin et al (US003852409) – Martin et al (US003852409) disclose the process for the removal of acidic gases and particulate matter from carrier gases. The spray of water (scrubbers) is important before the twin cyclone

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(centrifugal separator), however, the cyclone is static separator and to replace the cyclone with centrifugal separator for gravity free environment is not obvious to one of ordinary skill in the art.

The 3rd related prior art reference located by examiner is Erickson et al (US003977810) – Erickson et al (US003977810) teach the pitot pump for the advantages of constant flow as well as independent of discharge pressure. Although it is well known in the art that centrifugal separator can be applied for carbon dioxide separation so that the pitot pump of Erickson et al (US003977810) is combined with other prior arts for the obviousness reason of rejection, the step of mist separator and 2nd scrubber of liquid acid wash as claimed by applicants are not disclosed by above-mentioned prior arts. One of ordinary skills in the art would not be obvious to include such methods and apparatus together for removal of the carbon dioxide in the gravity independent environment. Therefore, the instant claims are considered as novel and allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ives Wu whose telephone number is 571-272-4245. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Ives Wu

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Date: April 17, 2007

DUANE SMITH
PRIMARY EXAMINER

4-18-07